**Remarks**

Status of the Claims

1. The Office objected to Claims 7 and 8 as being in improper dependent form. Applicant has amended Claims 7 and 8 to correct the error noted by the Office, without changing the scope of the originally-filed claims.

2. The Office rejected Claims 1-15 under 35 U.S.C 112, second paragraph, as being indefinite. Applicant has amended Claims 1-8 to make the terminology more clear, without changing the scope of the originally-filed claims.

3. The Office rejected Claims 1-15 on the ground of nonstatutory obviousness-type double patenting over claims 1 and 5 of U.S. patent 6,724,400.

4. The Office rejected Claim 1-15 under 35 U.S.C. 102(b) as anticipated by U.S. Patent 6,054,989 (*Robertson*).

Objections to Claims 7 and 8

5. Applicant has amended Claims 7 and 8 to depend from Claim 6, and submits that the corresponding objections have been cured.

Rejections of Claim 1-15 under 35 U.S.C. 112, second paragraph

6. The Office indicated that the terms "the display," "the display space," "x-display," and "y-display" were unclear. Applicant has amended the claims that recite those terms to make their meanings more clear. Specifically, the "display space" is a three dimensional space that is defined by three dimensions, which dimensions are assigned names for convenience of subsequent reference: the "x-display dimension," the "y-display dimension," and the "z-display dimension." Applicant submits that the terms in the claims, as amended, are clear.

7. The Office further indicated that the terms "the device," "input device," "x-device," y-device," and "z-device" made it unclear which device was referred to. Applicant has amended the claims that recite those terms to make their meanings more clear. Specifically, the "input device" is the particular hardware element the user uses to provide input to the system. The input device is moveable in three dimensions, which dimensions are assigned names for convenience of later reference: the "x-device dimension," the "y-device dimension," and the "z-device dimension." Applicant submits that the terms, as amended, are clear.

8. The Office further indicated that the wording of Claims 5 and 8 was ambiguous since the second "that," used as a pronoun, had no clear antecedent. Applicant has amended Claims 5

and 8 to replace the offending "that" with the originally intended word "than," and submits that the claims, as amended, are clear.

Double Patenting Rejection

9. While not conceding the merits of the double patenting rejection, Applicant submits that the enclosed terminal disclaimer makes the double patenting rejection moot.

Rejection of Claim 1 under 35 U.S.C. 102(b) as anticipated by *Robertson*

10. For a reference to anticipate a claim, the reference must teach **every** element of the claim, **in as complete detail** as is contained in the claim. *See, e.g.,* MPEP 2131; *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Because *Robertson* does not teach or suggest every limitation of Claim 1, Applicant submits that there is no *prima facie* case of anticipation by *Robertson*. Specifically, *Robertson* does not teach any interaction with a device moveable in **three** dimensions, or changing of interface characteristics based on motion of a cursor into a range of coordinates in the z-dimension.

11. Interaction with an input device moveable in three dimensions. *Robertson* is concerned with a user interface to objects stored on a computer, and managing the display of the objects to the user to exploit spatial memory of people. *Robertson* col 1 lines 10-14. *Robertson* is teaches an interface that allows a user to view and organize objects, and to edit selected objects. *Robertson* col 9 lines 16-18. *Robertson* generally teaches management of a display as a user moves a cursor between various icons or windows, and has numerous mentions of two-dimensional input devices, and mentions of mapping of two-dimensional input device motion to simulated three-dimensional coordinates. *See, e.g., Robertson* col 7 lines 6-8 ("inputs from a familiar input device such as a mouse"); col 7 lines 9-10 ("may map two-dimensional inputs, such as moving a mouse on a mouse pad,"); col 9 lines 57-78 ("inputs from a familiar input device such as a mouse or pointer"); col 9 lines 60-62 ("may map two-dimensional inputs, such as moving a mouse on a mouse pad"); col 9 lines 63-65 ("the two-dimensional inputs may be translated to two-dimensional screen coordinates"); col 11 lines 55-60 ("may enter ... through inputs devices, such as a keyboard ... microphone, joystick, game pad, satellite dish, scanner, or the like"); col 15 lines 49-52 ("The pointer input management process (or more generally a "2D input facility")"); col 24 lines 34-38 ("Step 1912 maps the two-dimensional pointer input"). While *Robertson* mentions mapping of two-dimensional inputs to three-dimensional screen representations, *Robertson* never even suggests the use of a three-dimensional input device,

perhaps because *Robertson* is concerned with improving the effectiveness of user interfaces to a plurality of objects in a conventional computer environment (having a conventional two dimensional input device such as a mouse). Hence, *Robertson* teaches methods to use common two-dimensional input devices to helps users view and organize documents. *See, e.g., Robertson* col 1 lines 10-14; col 18 lines 27-29. In contrast, Applicant's Claim 1 is limited to a method of providing a human-computer interface using an input device having a range of motion in three dimensions. Because *Robertson* has no teaching of such an interface, *Robertson* does not anticipate Claim 1.

12. Application and personal domains. Claim 1 is further limited to a method that provides two different domains, having distinct characteristic interface characteristics. *See, e.g.*, Specification p. 2 lines 25-26 ("The interface also includes a personal domain, offering the user **controls and interaction distinct** from the application domain"). *Robertson*, intended to provide the user an effective interface for viewing and organizing objects, does not teach two domains having distinct interface characteristics. Because *Robertson* does not teach providing user interaction according to two distinct domains. *Robertson* does not anticipate Claim 1.

13. Domain selection by cursor motion in the z dimension. Claim 1 is further limited to selection of which domain is active (and so which interface characteristics to provide) based on motion of a cursor in a z dimension of a three-dimensional display space. *Robertson* teaches selection of **objects** by **mouse clicks**, but not selection between **interface domains** by **cursor motion** in the z dimension. In contrast, in Applicant's Claim 1, the active interface domain is determined by motion of a cursor in the z dimension. *Robertson* mentions the z dimension only for organizing objects, and even then describes Workscape (background art, not *Robertson's* invention) where pushing and pulling documents in the Z dimension "will be cumbersome for users in practice." *Robertson* col 5 lines 65. Because *Robertson* does not teach selection between two distinct interface domains based on movement of a cursor in the z dimension of the display space, *Robertson* does not anticipate Claim 1. Applicant submits that Claim 1 is in condition for allowance.

Rejection of Claims 2-15 under 35 U.S.C. 102(b) as anticipated by *Robertson*

14. For a reference to anticipate a claim, the reference must teach **every** element of the claim, **in as complete detail** as is contained in the claim. *See, e.g.,* MPEP 2131; *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Because *Robertson* does not teach or suggest every limitation of Claims 2-15, Applicant

submits that there is no *prima facie* case of anticipation by *Robertson*. Specifically, *Robertson* does not teach any interaction with a device moveable in **three** dimensions, or changing of interface characteristics based on motion of an **input device** into a range of coordinates in the z-dimension of the input device's range of motion.

15. Interfaces with devices moveable in three dimensions. As discussed in paragraph 11 above, *Robertson* has no mention of interfaces with input devices moveable in three dimensions. Claim 2, and Claims 3-15 depending therefrom, are limited to a method of providing a human-computer interface using an input device having a range of motion in three dimensions. Because *Robertson* has no teaching of such an interface, *Robertson* does not anticipate Claim 2 and Claims 3-15 depending therefrom.

16. Application and personal domains. Claim 2 is further limited to a method that provides two different domains, having distinct characteristic interface characteristics. *See, e.g.*, Specification p. 2 lines 25-26 ("The interface also includes a personal domain, offering the user **controls and interaction distinct** from the application domain"). *Robertson*, intended to provide the user an effective interface for viewing and organizing objects, does not teach two domains having distinct interface characteristics. Because *Robertson* does not teach providing user interaction according to two distinct domains, *Robertson* does not anticipate Claim 2 or Claims 3-15 depending therefrom.

17. Selection between application and personal domains by **device** motion in the z dimension. Claim 2 is further limited to a method that selects between two distinct domains (and consequently which interface characteristics to provide), based on motion of a device in a z dimension of a three-dimensional input device's range of motion. *Robertson* teaches selection of **objects** by **mouse clicks**, but not selection between **interface domains** by **input device motion** in the z dimension of the input device's range of motion. In Applicant's Claim 2, the active interface domain is determined by motion of an input device in the z dimension of the input device's range of motion. *Robertson* mentions a z dimension only as an aspect of the simulated space, and only for organizing objects, and even then describes Workscape (background art, not Robertson's invention) where pushing and pulling documents in the Z dimension "will be cumbersome for users in practice." *Robertson* col 5 lines 65. Further, *Robertson's* only teaching of three-dimensional input is when mapping **two-dimensional** input device motion to a simulated three-dimensional space, and thus could not select an interface domain based on motion of an input device in the z dimension of the input device's range of motion. Because *Robertson* does not teach selection between two distinct interface domains

based on movement of an input device in the z dimension of the input device's range of motion, *Robertson* does not anticipate Claim 2 or Claims 3-15 depending therefrom. Applicant submits that Claims 2-15 are in condition for allowance.

18. Further limitations of Claims 3 and 6. Claim 3 recites the further limitation that the determination of which interface domain to provide to the user is based on motion of the input device across a **surface** defined in three dimensions of the input device's range of motion. As discussed above, *Robertson* does not teach interfaces to input devices moveable in three dimensions, and thus can not based any action on motion of an input device across a surface defined in three dimensions. Further, *Robertson* has no teaching of any surface that serves to provide selection between distinct interface domains. Because *Robertson* does not teach these additional limitations of Claims 3 and 6, and Claims 4-5 and 7-8 depending therefrom, *Robertson* does not anticipate Claims 3 and 6, and Claims 4-5 and 7-8 depending therefrom.